

Tanaka discusses constraints that are expressed in the forms of equations and inequalities of linear combinations of variables (*see*, col. 1, ln. 47-49), but fails to consider resizing activities into smaller activities or scheduling both activities and smaller activities based on continuous and linear constraints. Further, the mere existence of continuous constraints in Tanaka is not sufficient to suggest their applicability to Goldman absent some express motivation in one of the references for combination with the other.

Because the references cited here fail to teach all elements of the pending claims, including both modifying selected activities into sets of smaller activities and scheduling the activities and smaller activities based on discrete and continuous constraints, the pending claims are believed to be patentably distinct from these cited references.

Claims 1-11, 14, 15, 19, 27-29, 33 and 34 were also rejected under 35 USC 103(a) as being unpatentable over Zweben et al. (U.S. 6,216,109).

Applicant respectfully traverses this single reference §103 rejection, and pursuant to MPEP 2144.03, requests that references showing each element of the pending claims be cited along with motivation for combination of such references. To sustain a rejection under 35 U.S.C. §103(a), the cited references must teach or suggest all the claim elements. M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

Zweben teaches constraint-based iterative repair of a schedule for a complex activity, such that repairs are made in each iteration of a schedule until a schedule not producing a constraint violation is obtained as a result. The system is specifically designed to only repair violated constraints and not to modify the entire preexisting schedule, minimizing perturbations of the existing schedule. Although Zweben discusses use of various types of constraints such as temporal and resource constraints (*see, e.g.* col. 14, ln. 25-52) and state and preemptive constraints (*see, e.g.* col. 15, ln. 33 -- col. 16, ln. 61), it does not define, distinguish between, or otherwise discuss discrete and continuous constraints or analogs thereof. Further, although tasks are discussed in the cited col. 14, ln. 13-20, splitting selected tasks into subtasks is not found in the reference.

In contrast, the pending claims recite modifying selected activities into sets of smaller activities, and scheduling both activities and smaller activities based on discrete and continuous constraints. More specifically, the invention as claimed in the pending claims involves selecting

activities for division into smaller activities, modifying these selected activities into smaller activities, and scheduling both these modified or divided smaller activities along with other activities from the list of activities based on both discrete and continuous constraints. Attention is drawn to the specification, p.7, ln. 22, in which a continuous constraint is defined as a constraint expressing linear mathematical relationship with other variables.

Because the cited Zweben reference does not discuss modifying sets of activities into smaller activities and scheduling the activities and smaller activities based on discrete and continuous constraints, the claims of the present invention are believed to be patentably distinct from the cited reference. Reexamination and allowance of the claims rejected here is therefore respectfully requested.

Allowable Subject Matter

Claim 12 was objected to as being dependent upon a rejected base claim, but was indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Because the claims from which claim 12 depends are believed to be in condition for allowance, this pending claim is believed to be allowable as it stands as dependent on an allowable base claim.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/188399

Filing Date: November 6, 1998

Title: AUTOMATED FINITE CAPACITY SCHEDULER

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Dkt: H17367 (256.029US1)

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612-349-9581) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

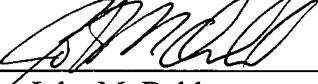
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 25 day of February, 2003.

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